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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,942	03/30/2004	Vladimir Pentkovski	42P18224	5784
59796	7590	05/23/2007		
INTEL CORPORATION c/o INTELLEVATE, LLC P.O. BOX 52050 MINNEAPOLIS, MN 55402			EXAMINER SCHLIE, PAUL W	
			ART UNIT 2186	PAPER NUMBER
			MAIL DATE 05/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/813,942

Applicant(s)

PENTKOVKSI ET AL.

Examiner

Paul W. Schlie

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 8-38 have been examined as amended 4/20/07.

Response to Arguments

2. Applicant's arguments filed 4/20/07 with respect to the objection to the specification and drawings have been fully considered and are persuasive; and thereby are withdrawn.
3. Applicant's arguments filed 4/20/07 with respect to the rejection of the claims 8-38 under 35 U.S.C. 112, first paragraph have been fully considered and are persuasive; as the logical structure and relationships claimed are considered to largely be "basically the same as before" (implying whose implementation would be reasonably well known and/or obvious to one of ordinary skill in the art without further supporting disclosure).
4. Applicant's arguments filed 4/20/07 with respect to the rejection of the claim 26 under U.S.C. 35 112 have been fully considered but not persuasive; as it is not clear how a "first bus agent" may credibly compose a "storage medium"; as although a "storage medium" is considered capable of storing information, it is not typically considered capable of encapsulating functions attributed to that of a "bus agent" without further structural details considered absent.
5. Applicant's arguments filed 4/20/07 with respect to the rejection of the claims 8, 18, 27 and 31 under U.S.C. 35 102 have been fully considered but not persuasive. As although the applicant's contends otherwise, all claims appear to be logically inherent of strongly ordered systems utilizing RFO as disclosed by Witek et al.; and thereby not patentably distinguishable over the art of record.

6. Applicant's arguments filed 4/20/07 with respect to the rejection of the claims 9-17, 19-25, 28-30 and 32-38 under U.S.C. 35 103 have been fully considered but not persuasive. As the applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made, nor attempt to show how corresponding limitations substantively avoid such references or objections in view of that reasonably considered obvious to those of ordinary skill in the art.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

8. Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. As it is not clear what is intended by claiming a computer system wherein the first bus agent comprises an apparatus chosen from a list comprising "a storage medium". Clarification or correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 8, 18, 27 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Witek et al. (5,043,886).

As per independent claims 8, 18, 27 and 31, Witek et al. teaches a system and/or methods comprising a processor which may contain a store buffer/register and a cache such that values stored in the store buffer/register may be stored in the cache independently of if previously stored values had been written to main memory, itself considered within the context of the reference to be analogous to becoming globally observable by the fact that a value may only be stored in main memory (which may itself be cached and considered a global store buffer) after RFO ownership has been granted and thereby becoming globally known through a global snooping interface (i.e. bus agent) monitoring such FRO requests by other processor/cache's bus agents correspondingly complying with the established semantics (see figures 1-4 and column 2 lines 43-68); where all corresponding logic is considered inherent in the methods disclosed and whose implementation is considered obvious to one of ordinary skill in the art at the time of the disclosed invention.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 9-17, 19-25, 28-30 and 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witek et al. (5,043,886).

As per claims 9-17, 19-25, 28-30 and 32-38 being dependent on claims 8, 18, 27, 31, or correspondingly dependant claim inclusively, where although not taught explicitly by Witek, a main memory cache may be considered a "global observation store buffer" (GoSB) storing values only after RFO has been granted and thereby becoming globally observed (claim 9); itself inherently comprising a "non-committed store queue" (NcSQ) storing globally cached data not yet literally written (i.e. tagged as being dirty) to main memory and thereby "globally observed" (claim 10); with remaining claims 11-17 being considered mere recitations of elements or behaviors considered otherwise inherent of typical cache implementation as may be obviously utilized to implement aforementioned GoSB and NcSQ caches/elements, and thereby considered obvious in combination with that more explicitly taught by Witek. Where further as claims 19-25, 28-30 and 32-38 are considered to reflect that effectively embodied within claims 9-17 in combination with that reviewed in the rejection of their parent claims under 35 U.S.C. 102, although in other form or being non-otherwise patentably distinguishable, they are correspondingly rejected per the same arguments as presented above.


Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765, or whose email address is [paul.schlie@uspto.gov]. The examiner can normally be reached on Mon-Thu 8:00-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PIERRE BATAILLE
PRIMARY EXAMINER
5/9/07